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ABSTRACT

This study examined demographic, behavioral, and academic contributors to inner-city children's grade retention prior to third grade and at the end of the fifth year of school. Subjects were 138 children who were enrolled in 63 public schools in Washington D.C. Prior to entering first grade, all children, 96 percent of whom were African American, had attended both prekindergarten and kindergarten. Measures included assessments of children's academic progress, children's behavioral and social development, parental involvement during children's first 3 years in school, the nature of children's prekindergarten and kindergarten experiences, and demographic information. Results, based on 66% of the original sample, indicated that relationships existed between children's reading and language skills in first grade and their grade retention prior to third grade; between their parents' involvement in their education during kindergarten and their grade retention prior to third grade; and between their verbal performance during their fifth year in school and their grade retention at the end of their fifth year in school. Three tables are included. (BC)

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At-Risk Preschoolers: Early Predictors of Future Grade Retention

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At-Risk Preschoolers: Early Predictors of Future Grade Retention

Previous or current retention in grade has consistently been identified as a predictor for dropping out of high school (i.e., Biegler & Gillis, 1985; Hess & Greer, 1987). Lloyd (1978) found future dropout predictors present as early as third grade, with nonpromotion in the first three grades a strong indicator of later dropout. Consequently research focused on early predictors of grade retention is especially worthwhile. For example, Schaefer (1986) found maternal interactions with infants to be predictive of grade retention during the early school years. Teacher ratings of children's early academic competence were also related to retention decisions.

The current study examined demographic, behavioral, and academic contributors to early grade retention among previously studied inner-city preschoolers as they reached the critical transition between primary and upper elementary grades. The high dropout rate in this urban school system made the current study of special preventative interest.

Method

Sample

A total of 138 children from the 'Class of 2000' (mean age = 107.3 mos.) enrolled in 63 public schools in Washington, DC were studied. Prior to entering first grade, all children had attended both pre-kindergarten and kindergarten. The sample was 96% African American and 51% female. Most children (79%) qualified for subsidized lunch based upon low family income and 69% lived in single parent homes. Since these children were first studied, 46% had moved to another school, 24% had been retained prior to third grade, and 11% were to be retained at the end of their fifth year in school.

Recovery Rate

Recovery rate was 66% of the original sample. The recovered sample had more African American children ($p < .01$) who were poorer ($p < .001$) and more likely to live in single parent families ($p < .01$). These differences were consistent with district-wide changes in enrollment patterns following kindergarten and were anticipated.

Measures

Previously collected and current measures of (a) academic progress (i.e., CTBS scores, report card grades), (b) children's development (i.e., Vineland Adaptive Behavior scores from Pre-K, K, and 1st grade), (c) social indicators (i.e., citizenship grades, Vineland Social Development scores), (d) parental involvement during children's first three years of school, (e) type of Pre-K and K experiences, and (f) demographics (i.e., gender, SES, mobility) were used to predict grade retention prior to or at the end of third grade.

Results

Measures within each general category were entered into stepwise regression analyses using pairwise deletion of cases with missing values. Table 1 reports correlations, R^2, and adjusted R^2 for predictor variables with significant beta weights for the criterion variables of grade retention prior to third grade and retention following children's fifth year in school. These significant predictor variables were entered into a second stepwise regression analysis with the resulting parsimonious models presented in Table 2 accounting for 44% to 50% of the variance. Discriminant analyses were then performed and 91.5% of children were correctly classified on retention status prior to 3rd grade based upon parental involvement during kindergarten and 1st

grade verbal (reading, language, spelling) academic performance. Overall 85.4% were correctly classified on retention status following their fifth year in school based upon 'Year Five' verbal academic performance.

Data were then analyzed separately for boys and girls with the most parsimonious models presented in Table 3. For girls, discriminant analyses correctly classified 95.8% and 90.8% on retention status prior to and following 'Year Five' in school respectively. Overall accuracy of classification for boys was 80.0% and 89.2% on retention status prior to and following 'Year Five' in school respectively.

Discussion

Findings that measures of reading achievement and language skills were such strong predictors of grade retention were of particular value because these same variables were notable predictors of dropout status in Lloyd's earlier work (1974, 1978). These new data differentiated periods in a child's school career that have the most potential influence on retention decisions. For example, poor verbal performance during first grade was predictive of retention prior to third grade but not of retention after 'Year Five' in school, although it may have contributed cumulatively to the 'Year Five' deficits in verbal performance found to be predictive of later retention.

The contribution of early parental involvement as an 'inoculator' against retention prior to third grade was another important finding in these data because of its implications for early intervention efforts. Likewise finding a predictive association between retention after 'Year Five' and notable school attendance problems at age four among girls suggested avenues for early intervention. Because preschoolers are not responsible for getting

themselves to school, this latter finding may also be reflective of parental involvement in children's early schooling. Another explanatory possibility involves preschool health of girls retained at the end of the primary grades.

Replication of these findings on another cohort of children would be essential before recommendations for intervention can be confidently proposed. Such research is currently underway, and it is hoped that efforts to curtail early difficulties predictive of nonpromotion in the primary grades will translate into reductions in the dropout rate in this urban school system.

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Table 1

Predictor Variables with Significant Beta Weights for Categorical Variables Predicting the Dichotomous Criterion Variable of Retention or Promotion

	Retention Prior to 3rd Grade				Retention After 3rd Grade			
Category	r	R^2	adjusted R^2	Beta	r	R^2	adjusted R^2	Beta
Demographics								
Gender	.26**	.065	.057	.2181*			ns	
SES	.20**	.038	.031	.2208+			ns	
Mobility		ns			.20**	.041	.033	.3013**
Age in 1st grade		ns			-.17*	.033	.025	-.7257**
Age in K		ns			-.06	.046	.039	.3679*
Preschool Model								
Academic PK	-.17**	.029	.022	-.2087*			ns	
Parent Involvement								
In K	-.67**	.450	.389	-.6788+			ns	
In 1st	-.38**	.141	.123	-.4650**				
Grades								
1st Verbal	-.69***	.475	.469	-.6540**			ns	
'Year 5' Verbal		ns			-.67***	.449	.443	-1.009***
Social								
1st grade Vineland Social Dev	-.41***	.166	.153	-.2515+			ns	
Pre-K Citizenship Grades	-.36***	.059	.048	-.2158+			ns	
'Year 5' Citizenship Grades		ns			-.30***	.091	.077	-.2368+
Development								
1st Grade Vineland Self Help	-.50***	.248	.237	-.4933<+>			ns	
Achievement Tests								
CTBS Total Battery	<not applicable>				-.47***	.224	.217	2.449**

<+> $p = .13$ + $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

Table 2

Parsimonious Model Predicting the Dichotomous Criterion Variable of Retention or Promotion (Girls and Boys Combined)

	Retention Prior to 3rd Grade		Retention After 3rd Grade	
Category	r	Beta	r	Beta
1st Grade Verbal	-.69**	-.6829**	<not applicable>	
Parent Involvement in Kindergarten	-.29*	-.1513 +	<not applicable>	
'Year Five' Verbal	<not applicable>		-.67**	-.7119**
Multiple Correlation Squared (cumulative)	.510		.449	
Adjusted R^2 (cumulative)	.495		.442	

\+ p =.13 * p < .01 ** p < .001

Table 3

Parsimonious Model Predicting the Dichotomous Criterion Variable of Retention or Promotion by Gender

	Retention Prior to 3rd Grade		Retention After 3rd Grade	
Category	r	Beta	r	Beta
Girls				
1st Grade Verbal	-.75***	-.7082***	<not applicable>	
Parent Involvement in Kindergarten	-.35**	-.2447<+>	<not applicable>	
'Year Five' Verbal	<not applicable>		-.56***	-.5114***
Attendance Problem in Pre-K	<not applicable>		.32**	.2184*
Multiple Correlation Squared (cumulative)	.615		.363	
Adjusted R^2 (cumulative)	.578		.342	
Boys				
1st Grade Verbal	-.63***	-.4860+	<not applicable>	
'Year Five' Verbal	<not applicable>		-.75***	-.7301***
Multiple Correlation Squared (cumulative)	.394		.561	
Adjusted R^2 (cumulative)	.365		.549	

<+> p = .08 + p = .06 * p < .05 ** p < .01 *** p < .001